INCH-POUND

A-A-55599B
20 September 2007
SUPERSEDING
A-A-55599A
25 January 1996

COMMERCIAL ITEM DESCRIPTION

BEARINGS, ROLLER, CYLINDRICAL, SINGLE ROW OF ROLLERS, ONE ROLLER RETAINING RIB ON INNER RING, TWO ROLLER RETAINING RIBS ON OUTER RING, ONE DIRECTION LOCATING

The General Services Administration has authorized the use of this commercial item description for all federal agencies.

1. SCOPE. This commercial item description (CID) covers the requirements for cylindrical roller bearings, single row of rollers, one roller retaining rib on inner ring, two roller retaining ribs on outer ring, one direction locating.

2. CLASSIFICATION. The cylindrical roller bearings shall be classified by the sizes, cage materials, and precision tolerances listed below:

Size - bearing dimensions (see table I and figure 1)

Cage materials (see table II)

Precision tolerances (see table III)

3. SALIENT CHARACTERISTICS

3.1 Dimensions. The bearings shall be of the dimensions corresponding to the dash number in table I and the bore, outside diameter, overall width, and shaft housing and fillet radius corresponding to figure 1 (see 7.3(b)).

Beneficial comments, recommendations, additions, deletions, clarifications, etc. and any data that may improve this document should be sent to: STDZNMGT@dla.mil or Defense Supply Center Richmond (DSCR), ATTN: DSCR-VEB, 8000 Jefferson Davis Highway, Richmond, VA 23297-5616.

TABLE I. Dimensional requirements.

Dash no.	A Bore (mm)	B Outside diameter (mm)	C Overall width (mm)	R Shaft & housing fillet radius (mm)	Recommended shoulder diameter		Load rating (lbs.)		Interchangeable specification
					Shaft (mm)	Housing (mm)			
				Max.	Min.	Max.	Dynamic	Static	
01	17	40	12	0.025	0.84	1.44	2,500	1,400	MS19078-1
02	17	47	14	0.040	0.90	1.67	2,900	1,500	MS19078-2
03	20	52	15	0.040	1.02	1.82	3,500	1,900	MS19078-3
04	25	52	15	0.040	1.22	1.86	3,000	1,600	MS19078-4
05	25	62	17	0.040	1.25	2.20	5,100	2,900	MS19078-5
06	30	62	16	0.040	1.42	2.24	3,950	2,200	MS19078-6
07	30	72	19	0.040	1.50	2.55	6,750	3,950	MS19078-7
08	35	72	17	0.040	1.66	2.61	5,900	3,450	MS19078-8
09	35	80	21	0.060	1.73	2.83	8,850	5,350	MS19078-9
10	40	80	18	0.040	1.87	2.88	7,650	4,650	MS19078-10
11	45	90	23	0.060	1.94	3.19	10,300	6,360	MS19078-11
12	45	85	19	0.040	2.08	3.06	8,050	5,000	MS19078-12
13	45	100	25	0.060	2.20	3.54	14,200	9,050	MS19078-13
14	50	110	27	0.080	2.42	3.90	17,000	11,100	MS19078-14
15	55	100	21	0.060	2.52	3.60	10,300	6,700	MS19078-15
16	55	120	29	0.080	2.65	4.25	20,700	13,600	MS19078-16
17	60	110	22	0.060	2.73	3.06	12,600	8,450	MS19078-17
18	60	130	31	0.080	2.88	4.61	23,200	15,500	MS19078-18
19	65	120	23	0.060	3.00	4.32	14,900	10,200	MS19078-19
20	65	140	33	0.080	3.11	4.96	25,600	17,100	MS19078-20
21	70	125	24	0.060	3.19	4.50	14,800	10,200	MS19078-21
22	70	150	35	0.080	3.32	5.31	30,100	20,800	MS19078-22
23	75	130	25	0.060	3.37	4.68	17,000	12,100	MS19078-23
24	75	160	37	0.080	3.57	5.67	33,300	25,600	MS19078-24
25	80	140	26	0.080	3.60	5.05	19,600	13,700	MS19078-25
26	80	170	39	0.080	3.79	6.02	36,500	25,600	MS19078-26
27	85	150	28	0.080	3.85	5.40	22,400	15,900	MS19078-27
28	85	180	41	0.100	4.04	6.38	42,900	30,500	MS19078-28

TABLE I. Dimensional requirements - Continued.

Dash no.	A Bore (mm)	B Outside diameter (mm)	C Overall width (mm)	R Shaft & housing fillet radius (mm)	Recommended shoulder diameter		Load rating (lbs.)		Interchangeable specification
					Shaft (mm)	Housing (mm)			
				Max.	Min.	Max.	Dynamic	Static	
29	90	160	30	0.080	4.05	5.76	28,000	20,200	MS19078-29
30	90	190	43	0.100	4.25	6.73	46,500	33,300	MS19078-30
31	95	170	32	0.080	4.29	6.12	31,400	22,800	MS19078-31
32	95	200	45	0.100	4.54	7.09	53,200	39,100	MS19078-32
33	100	180	34	0.080	4.56	6.48	34,800	25,600	MS19078-33
34	100	215	47	0.100	4.83	7.62	61,500	45,900	MS19078-34
35	105	190	36	0.080	4.77	6.84	38,000	30,000	MS19078-35
36	105	225	49	0.100	5.05	7.97	69,700	52,400	MS19078-36
37	110	200	38	0.080	5.01	7.20	45,000	34,000	MS19078-37
38	110	240	50	0.100	5.37	8.50	79,100	60,300	MS19078-38
39	120	215	40	0.080	5.47	7.74	45,900	37,500	MS19078-39
40	120	260	55	0.100	5.82	9.21	93,400	71,100	MS19078-40
41	130	280	58	0.120	6.32	9.92	110,000	90,100	MS19078-41
42	150	320	65	0.120	7.11	11.34	133,000	106,000	MS19078-42

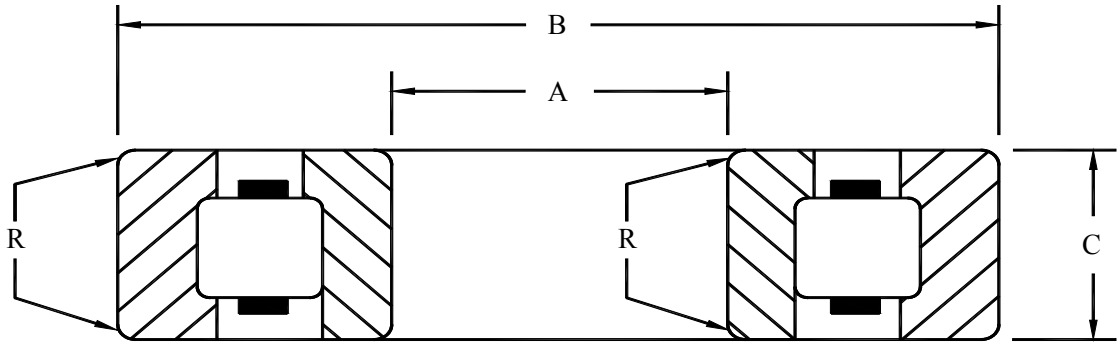


FIGURE 1. Dimensions.

3.2 Cage. The cage shall be one of the coded options in table II (see 7.3(c)).

TABLE II. Cage materials.

Cage code	Material type
A	Manufacturer's standard
B	Brass
M	Machined brass
N	Non-metallic
J	Steel

3.3 Precision tolerance. The bearing precision tolerance level shall be RBEC-1 as defined in ABMA 20, "Radial Bearings of Ball, Cylindrical Roller and Spherical Roller Types, Metric Design". The associated radial internal clearance shall be one of the coded options listed in table III (see 7.3(d)).

TABLE III. Precision tolerance requirements.

Code	Tolerance class	Radial internal clearance
C2	RBEC-1	Group 2 (less than normal)
C0		Group N (normal)
C3		Group 3 (greater than normal)
C4		Group 4 (greater than 3)

3.4 Material.

3.4.1 Rings and rollers. Rings and rollers shall be made of chromium-alloy steel 52100 (UNS G52986) conforming to SAE-AMS 6440, "Steel, Bars, Forgings, and Tubing 1.45Cr (0.93 - 1.05C) (SAE 52100) For Bearing Applications". The hardness of rings and rollers shall be 58 to 66 RC in accordance with ASTM E 18, "Standard Test Methods for Rockwell Hardness and Rockwell Superficial Hardness of Metallic Materials".

3.5 Load ratings. Basic load ratings shall be calculated using the method specified in ABMA 11, "Load Ratings and Fatigue Life for Roller Bearings".

4. REGULATORY REQUIREMENTS

4.1 Recovered materials. The offeror/contractor is encouraged to use recovered materials to the maximum extent practicable, in accordance with paragraph 23.403 of the Federal Acquisition Regulation (FAR).

5. PRODUCT CONFORMANCE PROVISIONS

5.1 Product conformance. The products provided shall meet the salient characteristics of this CID, conform to the producer's own drawings, specifications, standards, and quality assurance practices, and be the same product offered for sale in the commercial marketplace. The government reserves the right to require proof of such conformance.

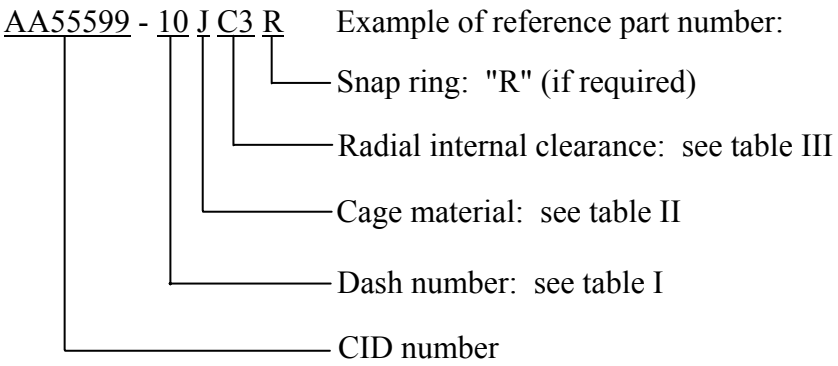
5.2 Market acceptability. The product offered must have been previously sold either to the government or on the commercial market.

6. PACKAGING

6.1 Preservation, packing, and marking. Preservation, packing, and marking shall be as specified in the acquisition order (see 7.3(e)).

7. NOTES

7.1 Part or identification number (PIN). The following PIN procedure is for government purposes and does not constitute a requirement for the contractor.



AA55599-10JC3R indicates: bore diameter 40 mm, outside diameter 80 mm, overall width 18 mm; steel cage; greater than normal radial internal clearance; with snap ring.

7.2 Sources of documents.

7.2.1 ABMA standards. Copies of ABMA standards may be obtained from the American Bearing Manufacturers Association, 2025 M Street NW, Suite 800, Washington, DC 20036. Electronic copies of ABMA standards may be obtained from http://www.abma-dc.org/.

7.2.2 ASTM standards. Copies of ASTM standards may be obtained from ASTM International, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA 19428-2959. Electronic copies of ASTM standards may be obtained from http://www.astm.org/.

7.2.3 SAE standards. Copies of SAE standards may be obtained from SAE International, 400 Commonwealth Drive, Warrendale, PA 15096-0001. Electronic copies of SAE standards may be obtained from http://www.sae.org/.

7.3 Ordering data. The acquisition order should specify the following:

a. CID document number, revision, and CID PIN.
b. Bearing size (see 3.1).
c. Cage material type (see 3.2).
d. Precision tolerance requirement (see 3.3).
e. Preservation, packing, and marking requirements (see 6.1).

7.4 Subject term (key word) listing.

brass
cage
chromium-alloy steel
RBEC-1

MILITARY INTERESTS:

Custodians:
Army - AT
Navy - OS
Air Force - 11

Review Activities:
Navy - MC, SH

CIVIL AGENCY
COORDINATING ACTIVITY:

GSA - FSS

Preparing Activity:
DLA - GS4

(Project 3110-2007-002)

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using the ASSIST database at http://assist.daps.dla.mil.